

Datasheet for ABIN3111385

## FADS2 Protein (AA 1-444) (Strep Tag)



[Go to Product page](#)

### Overview

Quantity:	250 µg
Target:	FADS2
Protein Characteristics:	AA 1-444
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This FADS2 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

### Product Details

Brand:	AlICE®
Sequence:	<p>MGKGGNQGEG AAEREVSPT FSWEEIQKHNLRTDRWLVID RKVYNITKWS IQHPGGQQRVI          GHYAGEDATD AFRAFHPDLE FVGKFLKPLL IGELAPEEPS QDHGKNSKIT EDFRALRKTA          EDMNLFKTNH VFFLLLLLAHI IALESIAWFT VFYFGNGWIP TLITAFVLAT SQAQAGWLQH          DYGHLSVYRK PKWNHLVHKF VIGHLKGASA NWWNHRHFQH HAKPNIFHKD PDVNMLHVFV          LGEWQPIEYG KKKLKYLPYN HQHEYFFLIG PPLLIPMYFQ YQIIMTMIVH KNWVDLAWAV          SYYIRFFITY IPFYGILGAL LFLNFIRFLE SHWFWVWTQM NHIVMEIDQE AYRDWFSSQL          TATCNVEQSF FNDWFSGHLN FQIEHHLFPT MPRHNLHKIA PLVKSLCAKH GIEYQEKPLL          RALLDIIRSL KKSGKLWLDA YLHK</p> <p><b>Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.</b></p>

# Product Details

---

Characteristics:	<div>Key Benefits:</div> <ul style="list-style-type: none"><li>• Made in Germany - from design to production - by highly experienced protein experts.</li><li>• Protein expressed with ALiCE® and purified in one-step affinity chromatography</li><li>• These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).</li><li>• State-of-the-art algorithm used for plasmid design (Gene synthesis).</li></ul> <p>This protein is a <b>made-to-order protein</b> and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.</p> <p>The big advantage of ordering our <b>made-to-order proteins</b> in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.</p> <div>Expression System:</div> <ul style="list-style-type: none"><li>• ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.</li><li>• During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!</li></ul> <div>Concentration:</div> <ul style="list-style-type: none"><li>• The concentration of our recombinant proteins is measured using the absorbance at 280nm.</li><li>• The protein's absorbance will be measured against its specific reference buffer.</li><li>• We use the ExPASy's ProtParam tool to determine the absorption coefficient of each protein.</li></ul>
Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

## Target Details

Target:	FADS2
Alternative Name:	FADS2 ( <a href="#">FADS2 Products</a> )
Background:	<p>Acyl-CoA 6-desaturase (EC 1.14.19.3) (Delta(6) fatty acid desaturase) (D6D) (Delta(6) desaturase) (Delta-6 desaturase) (Fatty acid desaturase 2),FUNCTION: Involved in the biosynthesis of highly unsaturated fatty acids (HUFA) from the essential polyunsaturated fatty acids (PUFA) linoleic acid (LA) (18:2n-6) and alpha-linolenic acid (ALA) (18:3n-3) precursors, acting as a fatty acyl-coenzyme A (CoA) desaturase that introduces a cis double bond at carbon 6 of the fatty acyl chain. Catalyzes the first and rate limiting step in this pathway which is the desaturation of LA (18:2n-6) and ALA (18:3n-3) into gamma-linoleate (GLA) (18:3n-6) and stearidonate (18:4n-3), respectively (PubMed:12713571). Subsequently, in the biosynthetic pathway of HUFA n-3 series, it desaturates tetracosapentaenoate (24:5n-3) to tetracosahexaenoate (24:6n-3), which is then converted to docosahexaenoate (DHA)(22:6n-3), an important lipid for nervous system function (By similarity). Desaturates hexadecanate (palmitate) to produce 6Z-hexadecenoate (sapienate), a fatty acid unique to humans and major component of human sebum, that has been implicated in the development of acne and may have potent antibacterial activity (PubMed:12713571). It can also desaturate (11E)-octadecenoate (trans-vaccenoate, the predominant trans fatty acid in human milk) at carbon 6 generating (6Z,11E)-octadecadienoate (By similarity). In addition to Delta-6 activity, this enzyme exhibits Delta-8 activity with slight biases toward n-3 fatty acyl-CoA substrates (By similarity). {ECO:0000250 UniProtKB:B8R1K0, ECO:0000250 UniProtKB:Q9Z122, ECO:0000269 PubMed:12713571}.</p>
Molecular Weight:	52.3 kDa
UniProt:	<a href="#">O95864</a>

## Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Comment:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.</p> <p>During lysate production, the cell wall and other cellular components that are not required for</p>

Application Details

protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer.  
Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: 12 months